MISCELLANEOUS NOTES

1. CLAW MARKING ON TREES BY TIGER *PANTHERA TIGRIS* (LINN.) IN KANHA NATIONAL PARK

Introduction

Tiger is a territorial animal and usually leads a solitary life. The intrasexual territories are maintained by advertisement - both olfactory as well as visual. These signals are perceived by the conspecifics and thus internecine strife is avoided in nature. Scent marking, defecation and scratching on the ground, vocalisation, cheek rubbing on trees are some of the common territory marking methods. Some studies have been conducted on the scent marking, pheromones and olfaction in tiger (Brahmachary and Dutta 1979, Chaudhury 1979) but observations on claw marking by tiger are few.

Material and Method

The study was conducted in the Kanha National Park. Trees having tiger claw marks were located by intensive field survey. The tree species, girth, height of claw marks from the ground were recorded (Kotwal 1987) during 1980 to 1984 on specified roads as mentioned in the table. The distance of marked trees on different roads was also measured. The observations were repeated during the study period.

Results and Discussion

The results are shown in the Table 1. Tigers frequently used *Madhuca longifolia* (19 trees) and *Pterocarpus marsupium* (7 trees). *Boswellia serrata* and *Bombax ceiba* were sparing used. The girth of marked trees varied from 37 cm to 324 cm. The height of claw marks from the ground level varied from 65 cm to 270 cm. These marked trees were about 1-5 km. apart on different roads and apparently belonged to different tigers (probably of both sexes) as the observations were made along 5 different routes. In one observation made at Bastar, an aberrant tigress (man-eater) had clawed trees like *Lagerstroemia parviflora* and *Tectona grandis*. It is noteworthy that trees with soft bark having a good amount of sap were frequently clawed, whereas those having rough bark *Shorea robusta,* etc. were avoided, though present in abundance.

Table 1
SHOWING TIGER CLAW MARKS ON DIFFERENT TREE SPECIES

Tree species	Girth (cm)	No. of trees used	Height of marks from ground level (cm)	Road length
I. *Boswellia serrata*	142	1	94 to 218	4 km.
Madhuca longifolia	152 to 211	5	75 to 221	Magar Nullah-Sondhar road
Pterocarpus marsupium	200	1	67 to 222	
II. *Madhuca longifolia*	37 to 161	6	80 to 225	6 km. Magar Nullah-Sondhar road
III. *Madhuca longifolia*	251	1	65 to 215	4 km. Sondhar-Ronda road
Pterocarpus marsupium	64 to 251	3	78 to 225	
IV. *Madhuca longifolia*	106 to 324	7	97 to 220	14 km. Sondhar-Kariwah road
Pterocarpus marsupium	130 to 170	3	120 to 270	
V. *Bombax ceiba*	340	1	75 to 230	Bamni dadar road

Smith *et al.* (1989) have reported clawing in

both the sexes for territory marking. It is also believed that this action may perhaps sharpen the claws by peeling off any thin, loose or desquamated strips of laminae from the surface that are ready to flake off, either on the top of the claw or along the sides and thickened margins (Wyne-Edwards 1962). Probably this action also strengthens the claws and its muscles which are important to the predator for holding and tearing the prey. Schaller (1967) did not notice this phenomenon during his study (1964-66). Nevertheless clawing on trees is regularly discernible and appears to play an important role in territorial advertisement amongst tigers.

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2. AGGRESSIVE BEHAVIOUR OF A THIRSTY LEOPARD, *PANTHERA PARDUS* (LINN.)

There is a small spring called Kooda-ka-Joira situated high up in the hills about 20 km north-west of Udaipur. In fifties, the jungles around this spring were teeming with Four horned antelope (*Tetracerus quadricornis*), sambar (*Cervus unicolor*) and wild pigs (*Sus scrofa*). All these wild ungulates have been poached. Carnivores of the region (e.g. leopard and wolf *Canis lupus*)-chiefly depend upon live stock.

On 21st April, 1991 late in the evening our family went to the spring for an outing. Leaving the jeep about 200 m from the spring we walked down the remaining part and settled on an open patch near the water.

As darkness approached, we lit a carbide lamp and were enjoying the silence of the night. Suddenly we heard the low growl of a leopard from undergrowth 20 m from us. My father, who has many years of experience in the jungle, was worried and asked us to vacate the place immediately. But we were reluctant to do this and specially as the children were keen to see the leopard. Soon we found that the growling increased in intensity and the leopard started circling us and my father said that it is very dangerous now and we should quickly leave the place.

We hastily packed up our belongings and meanwhile the growl changed into a loud cough. For illumination we had only two pencil torches and a carbide lamp. As we prepared to depart, my elder brother took three or four steps away from us to pick up the lamp. At the same moment, with an ear-splitting cough the leopard broke cover and charged towards my brother. We all including my brother remained where we were. The leopard stopped about 13 feet from my brother, hissing, growling and lashing its tail. How long this state remained I can't say but probably less than a minute. The leopard slowly turned its head, leaped into a bush and disappeared from our sight. My brother quickly picked up the lamp and we retreated hastily towards the jeep.

My father explained that the leopard was very thirsty and was in dire need of water. The other source of water was about 3 km away. Because we were close to the spring, it warned us by growls to leave the place and when we were reluctant to do so, the leopard desperately charged towards us. Next day